Snyder Hollow Bridge
(Woodland Valley Road Bridge)
Woodland Valley Road, spanning Esopus Creek
Phoenicia vicinity
Ulster County
New York

HAER No. NY-183

PHOTOGRAPHS
WRITTEN HISTORICAL DATA

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HISTORIC AMERICAN ENGINEERING RECORD

SNYDER HOLLOW BRIDGE (WOODLAND VALLEY ROAD BRIDGE)
HAER No. NY-183

Location: Woodland Valley Road spanning Esopus Creek, Phoenicia vicinity, Town of Shandaken, Ulster County, New York. Bridge is 0.8 miles west of the center of the hamlet of Phoenicia and 1,200 feet south of Route 28.

UTM: N 4658820
E 555450
New York State Quad: Phoenicia

Date of Construction: Low truss, 1883; high truss 1893.

Style: Low truss is a seven panel pin connected, riveted, pony Pratt truss bridge. High truss is a six panel bolt connected, riveted, double intersecting, through Warren truss bridge.

Engineer/ Builder: Pony Pratt truss bridge fabricated and erected by the King Iron Bridge and Manufacturing Company, Cleveland, Ohio. Through Warren truss bridge fabricated and erected by the Wrought Iron Bridge Company, Canton, Ohio.

Present Owner: Ulster County, New York.

Present Use and Condition: On both spans the lower lateral cross bracing is broken and loose and the steel stringers and floor beams show signs of section loss in both the webs and flanges. The lower chords of both spans are also bent, twisted, tilted or bowed by collision with flood debris. The expansion roller bearing of the low Pratt truss bridge has extended to the limit of possible movement and is wedged against the fixed expansion shoe of the high Warren truss span.

Significance: A distinctive combination of low Pratt and high Warren truss bridges erected ten years apart. These two bridges reveal the evolution of iron truss bridge building, especially the shift from pin to bolted connection, in the late-nineteenth century.

Materials of Construction: Stone abutments, single concrete and stone pier. Pratt truss is pin connected and riveted. Warren truss is bolt connected and riveted.

Dimensions: Low Pratt truss is 88 feet long. High Warren truss is 90 feet 9 inches long. Total length of the two span crossing is 181 feet. The out-to-out width of both spans is 14 feet and the curb-to-curb width of both spans is 13 feet, 7 inches. Total deck area of the bridge is 2,500 square feet. Pony Pratt truss panels are 8 feet high and 12 feet, 4 inches wide. Warren truss panels are 19 feet, 6 inches high and 15 feet wide. Concrete and stone pier is 10 feet high.

Significant Exterior Features: Iron columns of the pony truss are stamped "Carnegie" and "Union, Buffalo, N.Y." Columns of the through truss are stamped "Phoenix."

Major Alterations and Additions: Original ornamental iron handrails replaced. Wooden deck replaced by corrugated metal sheets covered with asphalt paving in 1954.

Project Information: The documentation of the Snyder Hollow Bridge was prepared by the Historic American Engineering Record (HAER), National Park Service, during the summer of 1987 for the New York State Historic Bridges Recording Project. This project was sponsored by the New York State Department of Transportation and under the supervision of Eric DeLony, Chief & Principal Architect, HAER. This report was written by Andrew Cole and Charles Scott. When citing this report, please credit the Historic American Engineering Record and the authors.

The Town of Shandaken is a rural area of almost 70,000 acres in the northwest corner of Ulster County. The topography is primarily mountainous with many deep ravines. Most of the land is too steep and rocky to have been farmed and the early industry concentrated on "lumbering, shingle making, tanning," and some quarrying. With only these few natural resource-based industries, two railroad lines, and a small population, Shandaken did not have a large tax base with which to finance roads and bridges.

Esopus Creek, the principal stream in the area, meanders almost eighteen miles diagonally through the town. In 1871 Esopus Creek was crossed by five bridges. The Town of Shandaken contained a number of small hamlets and settlements: Shandaken, Pine Hill, Big Indian, Chichester, Mount Pleasant, Mount Summit, and Phoenicia. The Snyder Hollow Bridge is located on the western edge of the settlement of Phoenicia in an area originally known as Snyder Hollow because of the "Snyder Tannery" located in Woodland Valley.

Esopus Creek provided a natural path through the mountains and was the route of the Ulster and Delaware Railroad and the single east-west highway linking Kingston in eastern Ulster County and Shandaken and other towns to the west. Because of the steep hillsides and narrow valley floor and the deforestation resulting from years of heavy lumbering and tanning, Esopus Creek has been prone to seasonal flooding and periodic freshets. The records of the Town of Shandaken contain dozens of entries for bridge repair expenses.

In 1883, perhaps because of damage from floods, the Town of Shandaken found it "necessary to construct a large bridge, at once, at the junction of the Snyder Hollow stream with Esopus Creek." The cost of this bridge was estimated to be about $4,000. At a special election, residents approved construction of the bridge but specified that it must be built of iron. The construction of this bridge and the repair of others during that year led the Shandaken Town supervisor to petition the Ulster County Board of Supervisors for $1,500 toward the $5,740 bridge building and repair bill. The Shandaken Supervisor asserted: "The town of Shandaken is burdened with a large number of bridges made necessary in consequence of the many mountain streams passing through town; and also the Esopus Creek running through the full length of town, namely, about 18 miles...."

The petition for a $1,500 appropriation was immediately amended to $1,000, but even this request did not receive approval. A subsequent request for $500 passed by a 13 to 12 vote, but was declared invalid by the Chairman because all twenty-six County Supervisors had not voted. When the request for $500 was once again made the motion was "postponed indefinitely." Finally, Supervisor Simpson pleaded one more time for $500 to repair bridges. He stressed: "This application is made on the grounds that the Town is unreasonably burdened by erecting and repairing necessary bridges, the amount required for that purpose this year being in excess of $5,000. When it is taken into account that this Town is forced year after year to erect bridges that are washed away by Spring freshets, it will appear to the Board that an application of this character should receive careful consideration." Although the Board did not approve a

direct appropriation for bridges, it finally permitted Shandaken to apply $500 contributed by the County to the town's "poor fund" to be used to repair storm damaged bridges.

Despite the funding difficulties, the town contracted with the King Iron Bridge and Manufacturing Company of Cleveland, Ohio to erect a low Pratt truss iron bridge across Esopus Creek. Shandaken engaged William F. Dimmick to build a single stone abutment for this bridge, perhaps because a second abutment from a previous bridge was still useable. The funding problems did delay the payments to both Dimmick and the King Iron Bridge Company. At the end of 1885, Dimmick was still awaiting payment for building the abutment and, in 1886, the King Iron Bridge and Manufacturing Company was given two promissory notes, totaling $1,225 plus interest, payable in 1887 for the balance still due on the bridge contract.

Between 1883 and 1893, floods and freshets continued, almost annually, to inflict major damage to Shandaken's bridges. On September 4, 1893, the Commissioner of Highways was authorized by the Shandaken Town Board to contract for the building of a stone and cement abutment for the bridge. Two weeks later the Commissioner was instructed to sign a contract with the Wrought Iron Bridge Company, of Canton, Ohio, for an iron bridge costing $1,180. The contract specified that the bridge would be paid for in cash and was to be completed by December 1, 1893. Plank for the bridge was bought and paid for in late November. From the rapidity of the bridge erection and the payment of cash, it appears that the Town was deeply concerned with having a bridge in place as quickly as possible. With the building of a single abutment it is uncertain whether the new span replaced a second low truss span destroyed by a fall flood or was built because Esopus Creek had widened and eroded the southern approach of the existing bridge, necessitating a second span between what was once an abutment, now a center pier, and the new southern bank of the Creek.

Although floods and freshets continued to damage and destroy Shandaken bridges in the years after 1893, both Woodland Valley Road spans have survived with minor repairs and modifications, but no major alterations to their original structural configuration. These two spans have survived perhaps because of the small surface area exposed to the flood waters.

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